



UNITED STATES PATENT AND TRADEMARK OFFICE

EP

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,026	01/20/2004	Garrett J. Young	245232US25	7091
22850	7590	11/03/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			PHILOGENE, HAISSA	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	
			2828	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/759,026	Applicant(s) YOUNG, GARRETT J.	
	Examiner Haissa Philogene	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-17, 19-26, 28-35 and 37-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 19-26, 37 and 39 is/are allowed.
- 6) ☒ Claim(s) 10-17, 28-35, 38 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/21/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

EXAMINER'S COMMENT

The references cited in the PTO-form 1449 filed on 07/21/05 were cited in the 892-Form of the previous Office Action. The examiner consequently has lined through them.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by Thomas et al., Patent No. 5,211,480.

Thomas discloses in Fig.2 an LED light, comprising: (a) an LED light source (4);
(b) control means (20) for providing a pulse signal to said LED light source, wherein said control means (20) comprises: (b1) first means (50) for providing a variable pulse height signal to said LED light source (see Col.4, line 68 and Col.5, line 1 and Col. 6, lines 62 and 68); (b2) second means (52) for controlling said first means;
(b3) third means (54) for controlling said second means.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2828

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrick, Patent No. 6,379,026, in view of Thomas et al.

Petrick discloses an obstruction light (10) comprising: a first strobe light source (34, 54) for outputting light of a first color (white); an LED strobe light (84) for outputting light of a second color (red), and comprising: an LED light source (86). Petrick does not explicitly disclose control means for providing a pulse signal to said LED light source, wherein said control means comprises: first means for providing a variable pulse height signal to said LED light source; second means for controlling said first means; and third means for controlling said second means. Thomas discloses in Fig.2 a light system comprising: an LED light source (4); control means (20) for providing a pulse signal to said LED light source (4), wherein said control means (20) comprises first means (50) for providing a variable pulse height signal to said LED light source (see Col.4, line 68 and Col.5, line 1 and Col. 6, lines 62 and 68); second means (52) for controlling said first means; third means (54) for controlling said second means. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the control means as taught by Thomas into the Petrick type lighting system, because it would allow a signal processing electronics that provides at least variable pulse height signal to the source with capability of adjusting the intensity of the LED source.

Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan, Pub. No. 2004/0120156, in view of Thomas et al.

As per claim 10, Ryan discloses in Fig1 an LED light comprising: an LED light source (10); a thermoelectric device (6) onto which said LED light source (10) is mounted (see page 4, paragraph [0054], lines 2-4); thermoelectric device control means (8) for controlling said thermoelectric device for maintaining said LED light source within a predetermined temperature range (see page 4, paragraph [0067], lines 1-2 and page 5, paragraph [0072]. Ryan does not disclose control means for providing a pulse signal to said LED light source, wherein said control means comprises first means for providing a variable pulse height signal to said LED light source; second means for controlling said first means; third means for controlling said second means. Thomas discloses in Fig.2 a light system comprising control means (20) for providing a pulse signal to a LED light source (4), wherein said control means (20) comprises first means (50) for providing a variable pulse height signal to said LED light source (see Col.4, line 68 and Col.5, line 1 and Col. 6, lines 62 and 68); second means (52) for controlling said first means; third means (54) for controlling said second means. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the control means as taught by Thomas into the Ryan type lighting system, because it would allow a signal processing electronics that provides at least variable pulse height signal to the source with capability of adjusting the intensity of the LED source.

As per claim 11, Ryan in view of Thomas discloses the claimed invention substantially as explained above. Further, Ryan discloses a thermal sensor (9) for sensing a

Art Unit: 2828

temperature at at least a portion of said LED light source (10) (page 4, paragraph [0062], lines 1-3).

As per claims 12 and 13, Ryan in view of Thomas discloses the claimed invention substantially as explained above. In addition, Thomas discloses means (20) for controlling the pulse signal provided to said LED light source (4).

As per claims 14-17, Ryan in view of Thomas discloses the claimed invention substantially as explained above. Further, Ryan discloses the thermal sensor (9) readable as optical feedback control means for providing a control signal for controlling said thermoelectric device control means (8) (see also page 5, first column, lines 2-5).

Claims 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrick in view of Thomas et al. as applied to claim 40 above, and further in view of Ryan.

As per claim 28, Petrick in view of Thomas discloses the claimed invention substantially as explained above except for a thermoelectric device onto which a LED light source is mounted and thermoelectric device control means for controlling said thermoelectric device for maintaining said LED light source within a predetermined temperature range. Ryan discloses in Fig.1 a lighting system having a thermoelectric device (6) onto which a LED light source (10) is mounted (see page 4, paragraph [0054], lines 2-4); and thermoelectric device control means (8) for controlling said thermoelectric device for maintaining said LED light source (10) within a predetermined temperature range (see page 4, paragraph [0067], lines 1-2 and page 5, paragraph

[0072]. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the thermoelectric device and thermoelectric device control means as taught by Ryan into the Petrick in view of Thomas type lighting system, because it would allow cooling and transfer of thermal energy in the system upon control, thereby maintaining the temperature at a predetermined temperature during the system operation.

As per claim 29, Petrick in view of Thomas et al. and further in view of Ryan discloses the claimed invention substantially as explained above. Further, Ryan discloses a thermal sensor (9) for sensing a temperature at at least a portion of said LED light source (10) (page 4, paragraph [0062], lines 1-3).

As per claims 30 and 31, Petrick in view of Thomas et al. and further in view of Ryan discloses the claimed invention substantially as explained above. In addition, Thomas discloses means (20) for controlling the pulse signal provided to said LED light source (4).

As per claims 32-35, Petrick in view of Thomas et al. and further in view of Ryan discloses the claimed invention substantially as explained above. In addition, Ryan discloses the thermal sensor (9) readable as optical feedback control means for providing a control signal for controlling said thermoelectric device control means (8) (see also page 5, first column, lines 2-5).

Allowable Subject Matter

Claims 1-8, 19-26, 37 and 39 are allowed.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 8:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene
Primary Examiner
A.U. 2821